## COPY OF PAPERS ORIGINALLY FILED

1632 #6

\*) inside this box —> [+] Approved for use through 10/31/2002. OMB 0651-0031

Please type a plus sign (+) inside this box -> [+] U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number Application Number 10/007,700 November 30, 2001 Filing Date **Tongtong Wang** RECEIVED First Named Inventor 1632 **Group Art Unit** used for all correspondence MAR 1 5 2002 **Examiner Name** after initial filing) 210121.455C17 Attorney Docket No. <del>TECH CEN</del>TER 1600/2900 ENCLOSURES (check all that apply) CD(s), Number **Assignment Papers** Fee Transmittal Form of CD(s) (for an Application) Fee Attached Drawing(s) After Allowance Amendment/Response Request for Corrected Filing Communication to Group After Final Receipt Appeal Communication to Affidavits/declaration(s) Licensing-related Papers Board of Appeals and **Extension of Time Request** Interferences Petition **Express Abandonment** Appeal Communication to Petition to Convert to a Request Group (Appeal Notice, Brief, Provisional Application Information Disclosure Reply Brief) Power of Attomey, Statement; Form PTO-1449 **Proprietary Information** Revocation, Change of (5 sheets) Correspondence Address Status Letter Cited Reference (1) Declaration Return Receipt Postcard Certified Copy of Priority Statement under 37 CFR Additional Enclosure(s) Document(s) 3.73(b) (please identify below): Response to Missing Parts **Terminal Disclaimer** under 37 C.F.R. 1.52 or 1.53 Small Entity Statement Response to Missing Request for Refund Parts/Incomplete Application Remarks SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT Individual Name Jeffrey Hundley, Ph.D. 42,676 00500 PATENT TRADEMARK OFFICE Signature Date CERTIFICATE OF MAILING I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, Washington, D.C. 20231 on the date specified below.

Date: 2

Signature

Typed or printed name

Monica Steinborn

# COPY OF PAPERS ORIGINALLY FILED



**PATENT** 

### RECEIVED

MAR 1 5 2002

### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants

Tongtong Wang et al.

TECH CENTER 1600/2900

Application No.

10/007,700

Filed

November 30, 2001

For

COMPOSITIONS AND METHODS FOR THE THERAPY AND

DIAGNOSIS OF LUNG CANCER

Docket No.

: 210121.455C17

Commissioner for Patents Washington, DC 20231

### INFORMATION DISCLOSURE STATEMENT

#### Commissioner for Patents:

In accordance with 37 C.F.R. §§ 1.56 and 1.97 through 1.98, applicants wish to make known to the Patent and Trademark Office the references set forth on the attached Forms PTO-1449. This application is a continuation-in-part and relies, under 35 U.S.C. § 120, on the earlier filing date of prior application USAN 09/897,778, filed June 28, 2001; which is a continuation-in-part of USAN 09/850,716, filed May 7, 2001; which is a continuation-in-part of USAN 09/735,705, filed December 12, 2000; which is a continuation-inpart of USAN 09/685,696, filed October 9, 2000; which is a continuation-in-part of USAN 09/662,786, filed September 15, 2000; which is a continuation-in-part of USAN 09/643,597, filed August 21, 2000; which is a continuation-in-part of USAN 09/630,940, filed August 2, 2000; which is a continuation-in-part of USAN 09/606,421, filed June 28, 2000; which is a continuation-in-part of USAN 09/542,615, filed April 4, 2000; which is a continuation-in-part of USAN 09/510,376, filed February 22, 2000; which is a continuation-in-part of USAN 09/480,884, filed January 10, 2000; which is a continuation-in-part of USAN 09/476,496, filed December 30, 1999; which is a continuation-in-part of USAN 09/466,396, filed December 17, 1999; which is a continuation-in-part of USAN 09/285,479, filed April 2, 1999; which is a continuation-in-part of USAN 09/221,107, filed December 22, 1998; which is a continuation-inpart of USAN 09/123,912, filed July 27, 1998; which is a continuation-in-part of USAN 09/040,802, filed March 18, 1998. The references listed on pages 1-4 of the attached Forms PTO-1449 were submitted to and/or cited by the Office in these prior applications and, therefore, are not required to be provided in the present application. If the Examiner wishes, copies will be provided upon request. However, the reference listed on page 5 of Forms PTO-1449 was not submitted to and/or cited by the Office and is submitted herewith.

As to any reference made of record on the attached Form PTO-1449, applicants do not admit that it is "prior art" under 35 U.S.C. §§ 102 or 103, and specifically reserve the right to traverse or antedate any such reference, as by a showing under 37 C.F.R. § 1.131 or other method. Although the aforesaid references are made known to the Patent and Trademark Office in compliance with applicants' duty to disclose all information they are aware of which is believed relevant to the examination of the above-identified application, applicants believe that their invention is patentable.

Please acknowledge receipt of this Information Disclosure Statement and kindly make the cited references of record in the above-identified application.

Respectfully submitted,

Seed Intellectual Property Law Group PLLC

Jeffrey Hundley, Ph.D. Registration No. 42,676

JEH:mls Enclosures:

> Postcard Form PTO-1449 (5 Sheets) Copies of Cited References (1)

701 Fifth Avenue, Suite 6300 Seattle, Washington 98104-7092 (206) 622-4900

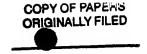
Fax: (206) 682-6031



APPLICATION NO. ATTY. DOCKET NO. U.S. DEPARTMENT OF COMMERCE FORM PTO-1449 PATENT AND TRADEMARK OFFICE 10/007,700 (REV.7-80) 210121.455C17 APPLICANTS INFORMATION DISCLOSURE STATEMENT Tongtong Wang et al. (V) (se several sheets if necessary) GROUP ART UNIT FILING DATE November 30, 2001 1632 **U.S. PATENT DOCUMENTS** FILING DATE CLASS SUBCLASS DOCUMENT NUMBER DATE NAME IF APPROPRIATE 69.3 435 Suminami et al. 5,783,422 07/21/98 424 185.1 01/06/98 Irie et al 5,705,159 ΑB FOREIGN PATENT DOCUMENTS TRANSLATION DOCUMENT COUNTRY DATE NUMBER YES **WIPO** WO 99/47674 09/23/99 AC **WIPO** WO 99/38973 08/05/99 AD WO 98/46788 10/22/98 **WIPO** ΑE **WIPO** WO 98/35985 08/20/98 AF WO 97/07244 02/27/97 **WIPO** AG **WIPO** 10/03/96 WO 96/30389 AΗ **WIPO** 09/19/96 WO 96/28473 ΑI **European Patent Office** 02/07/96 EP0695760A1 ΑJ WO 96/02552 02/01/96 **WIPO** AK **WIPO** WO 95/21862 08/17/95 AL WO 94/06929 03/31/94 **WIPO** AM **WIPO** WO 91/18926 12/12/91 AN OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.) Baldi et al., "Differential expression of Rb2/p130 and p107 in normal human tissues and in ΑO primary lung cancer," Clinical Cancer Research 3(10):1691-1697, October 1997. Brass et al., "Translation initiation factor eIF-4gamma is encoded by an amplified gene and ΑP induces an immune response in squamous cell lung carcinoma," Human Molecular Genetics, 6(1): 33-39, 1997. **EXAMINER** DATE CONSIDERED Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).



FORM PTO-1449 (REV.7-80)		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE			ATTY. DOCKET NO. 210121,455C17	REC	EIVE					
(				APPLICANTS								
PIF	DRMA	TION DISCLOSU	RE STATEM	ENT	Tongtong Wang et al. MAR 1				<u>1 5 2</u> po:			
/o``	رح کی	Use several sheets if ne	cessary)	FILING DATE			GROUP ART UNIT					
	LOUT,	<u> </u>			November 30, 2001 1632 TECH CENTER 16							
U.S. PATENT DOCUMENTS												
EXCHINER INTER	ADEM	DOCUMENT NUMBER	DATE		NAME	CLASS	CLASS SUBCLASS FILING DATE IF APPROPRIAT					
	ВА											
			FOREI	GN PATE	NT DOCUMENTS							
		DOCUMENT NUMBER	DATE		COUNTRY			TRANSL YES	ATION NO			
	ВВ											
	L	ОТНЕ	R PRIOR A	RT (Including	Author, Title, Date, Pertinent Pa	ges, Etc.)						
	ГТ				otein Sequence, Access		1468638 N	March 1	7.			
	ВС	1	IDL MUCIEO	nue anu Pi	hem bequence, Access	1011 1 10. 21			,			
		1999.										
<u> </u>	$\vdash$	Database EMBLest17 Accession No. AA340797:EST46165 Fetal kidney II Homo sapiens										
	BD	BD Database EMBLest1 / Accession No. AA340797.ES140103 retain kidney if Fronte Suprems cDNA 3' end, April 18, 1997.										
		CDIVIT'S CIR	.,p ,									
	Database EMBLest17 Accession No. W22264:Human retina cDNATsp-509I-cleaved											
	BE	sublibrary H	omo sapiens	cDNA not	directional, May 9, 19	96.						
			<u>-</u>									
	DC	Davidson et	al., "Lung tı	ımours imn	nunoreactive for parath	yroid hor	none relate	ed pepti	ide:			
	BF	analysis of s	erum calciur	n levels an	d tumour type," Journa	l of Patho	logy 178:3	398-401	,			
		January 1996										
		Finch et al.	"Identificati	on of a clor	ned sequence activated	during m	ılti-stage					
	BG	carcinogenes	sis in mouse	skin," Car	cinogenesis, 12(8):151	9-1522, A	ugust 1991	l <b>.</b>				
	1	Gerhold and	Caskey, "It	's the genes	! EST access to human	genome	content," E	BioEssa,	ys			
	Gerhold and Caskey, "It's the genes! EST access to human genome content," <i>BioEssays</i> 18(12):973-981, 1996.											
			· · · · · · · · · · · · · · · · · · ·									
	+	Hara et al "	Characteriz	ation of cel	l phenotype by a novel	cDNA lib	rary subtra	action s	ystem:			
	BI				derived interleukin-4-de							
		_			1011104 milotioumin 4-4	-Ponaoni		_ , ••				
	84(1):189-199, July 1, 1994.  Henderson et al., "Identification of lung tumor antigens for cancer immunotherapy:											
	BJ	Henderson	al., Identi	meanon or	andes " Immunalacia	i Invection	ation 20(2)	-₽J. 1-87 <b>-</b> 01	May			
			immunological and molecular approaches," Immunological Investigation 29(2):87-91, May									
DWAY (F)		2000.			DATE CONSIDERED				-			
EXAMIN	EK				DATE CONSIDERED							
* EXAMIN	ED.	Initial if reference consid-	ered whether or n	ot criteria is in ca	onformance with MPEP 609. Dra	w line through	citation if not in	n				
PAMINIII	DIV.	conformance and not con	sidered. Include of	opy of this form	with next communication to appli	cant(s).						



(REV.7-80)  O.S. DEPARTMENT OF COMMERCE 210121.455C17  APPLICATION OF CEIVE 10/007,700 RECEIVE 10/007,700 RE											
PE Quse several sheets if necessary)  FILING DATE  GROUP ART UNIT											
November 30, 2001   1632   TECH CENTER 1600/29											
U.S. PATENT DOCUMENTS											
*EXAMINER DATE NAME CLASS SUBCLASS FILING DATE IF APPROPRIATE											
CA											
FOREIGN PATENT DOCUMENTS											
DOCUMENT NUMBER DATE COUNTRY TRANSLATION YES NO											
CB CB											
OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)											
Hogan et al. "The pentide recognized by HLA-A68 2-restricted, squamous cell carcinoma											
of the lung-specific cytotoxic T lymphocytes is derived from a mutated elongation factor 2											
gene," Cancer Research 58(22):5144-5150, November 15, 1998.											
Hu et al., "A small proline-rich protein, spr1: specific marker for squamous lung											
carcinoma," Lung Cancer 20:25-30, 1998.											
Lelievre et al., "Structural properties of chimeric peptides containing a T-cell epitope linked											
to a fusion peptide and their importance for in vivo induction of cytotoxic T-cell responses,"											
European Journal of Biochemistry 249(3):895-904, 1997.											
Marshall and Hodgson, "DNA chips: an array of possibilities," Nature Biotechnology 16:27-											
31, January 1998.											
Pastor et al., "Diagnostic value of SCC, CEA and CYFRA 21.1 in lung cancer: a Bayesian											
analysis," Eur. Respir J. 10(3):603-609, March 1997.											
dilatiysts, Bur. Respir 6. 10(2)1000 003, 1111-010											
Rammensee et al., "MHC ligands and peptide motifs: first listing," Immunogenetics 41:178-											
CH   Rainfielisee et al., Wife figures and popular motifs. The last assume growth of the control											
Ramsay, G., "DNA chips: state-of-the art," Nature Biotechnology 16:40-44, January 1998.											
Ruppert et al., "Prominent role of secondary anchor residues in peptide binding to HLA-											
A2.1 molecules," Cell 74:929-937, September 10, 1993.											
EXAMINER DATE CONSIDERED											
* EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).											

ORIGINALLY FILED

ORIGINALLY FILED

Sheet  $\underline{4}$  of  $\underline{5}$ 

FORM PTO-1449 (REV.7-80)	1		.S. DEPARTMENT ( ATENT AND TRADI	ATTY. DOCKET NO. 210121.455C17	CATION NO RECEIV							
INEC	ORMA	TION DISCLOSU	RE STATEM	ENT	APPLICANTS Tongtong Wang et al.  MAR					5 200		
OIP	E	(Use several sheets if ne		FILING DATE November 30, 2001			GROUP ART UNIT 1632 TECH CENTER					
MAR 12	2002	J.CE	U.S.	PATENT 1	DOCUMENTS							
AXAMINER INCAL	1	COCUMENT NUMBER	DATE	DATE NAME CLASS SUBCLASS				BCLASS	FILING DATE IF APPROPRIATE			
THE BY	DA											
			FOREI	GN PATEN	NT DOCUMENTS				•			
		DOCUMENT NUMBER	DATE		COUNTRY				YES N	_		
	DB					<u>.</u>						
		ОТН	ER PRIOR A	RT (Including	Author, Title, Date, Pertinent Page	ges, Etc.)	)					
	DC	Russell and J. Mol. Biol.			ures can be unconserve	d in p	roteins v	vith si	milar folds	,,,		
	DD		Sherman et al., "Selecting T cell receptors with high affinity for self-MHC by decreasing the contribution of CD8," <i>Science 258</i> :815-818, October 30, 1992.									
	DE	serine protea	Skeiky et al., "Cloning, expression and immunological evaluation of two putative secreted serine protease antigens of Mycobacterium tuberculosis," <i>Infection and Immunity</i> 67(8):3998-4007, August 1999.									
	DF	Theobald et	Theobald et al., "Targeting p53 as a general tumor antigen," <i>Proc. Natl. Acad. Sci. USA</i> 92:11993-11997, December 1995.									
	DG		Visseren et al., "Identification of HLA-A *0201-restricted CTL epitopes encoded by the tumor-specific MAGE-2 gene product," <i>International Journal of Cancer</i> 73(1):125-130, 1997.									
	DH	carcinoma u	Wang et al., "Identification of genes differentially over-expressed in lung squamous cell carcinoma using combination of cDNA subtraction and microarray analysis," <i>Oncogene</i> 19(12):1519-1528, March 16, 2000.									
	DI	of novel che	Wells and Peitsch, "The chemokine information source: identification and characterization of novel chemokines using the WorldWideWeb and expressed sequence tag databases,"  Journal of Leukocyte Biology 61:545-550, May 1997.									
	נס									,		
EXAMINI	ER	L		· · · · · · · · · · · · · · · · · · ·	DATE CONSIDERED							
* EXAMIN	ER: I	nitial if reference conside	ered, whether or no	t criteria is in co	I Informance with MPEP 609. Drav	v line thre	ough citation	n if not in	l	$\neg$		

conformance and not considered. Include copy of this form with next communication to applicant(s).

				S. DEPARTMENT O		ATTY. DOCKET NO. 210121.455C17			1007,70 R	EIVE	
LIFF	IRM.	TIC	ON DISCLOSU	RE STATEM	ENT	APPLICANTS Tongtong Wang et al.  MAR					1 5 2002
(Use several sheets if necessary)						FILING DATE November 30, 2001 GROUP ART UNIT 1632 TECH			CENT	<del>'ER 160</del> 0/	
MYK		इं/		U.S.	PATENT 1	DOCUMENTS					
EX GENER INTER TRAC	EMAR	DO	CUMENT NUMBER	DATE		NAME	CLA	ss	SUBCLASS		G DATE OPRIATE
	EA										
				FOREI	GN PATE	NT DOCUMENTS					
			DOCUMENT NUMBER	DATE		COUNTRY				TRANS YES	NO NO
	ЕВ									1	
<del></del>		<del></del>	ОТНЕ	R PRIOR A	RT (Including	Author, Title, Date, Pertinent Pa	ges, Etc.	)			
	EC		blood of mel	anoma patie	nts followi	pecific CD8 <sup>+</sup> and CD4 <sup>-</sup> ng in vitro stimulation 79-4086, 1996.	† T ce with r	ll clo	ones from t nbinant va	he per	ripheral virus,"
	ED										
	EE			· · · · · · · · · · · · · · · · · · ·							
	EF ·	-						-			
	EG										
	ЕН										
	EI										
	EJ										
EXAMINE	LI R					DATE CONSIDERED					
* EXAMINI	ER:	Initia	al if reference conside	ered, whether or no	ot criteria is in co	onformance with MPEP 609. Draw	w line th	rough	citation if not in		

conformance and not considered. Include copy of this form with next communication to applicant(s).